REMARKS

This Response responds to the Office Action dated August 25, 2006 in which the Examiner rejected claims 1, 3-5, 8-9, 11 and 13-14 under 35 U.S.C. §103.

Claim 1 claims a cooling ceiling installation with at least one heat exchanger, a valve, which controls the flow of a heat transfer medium through the heat exchanger and a mechanical control device, and a monitoring device against condensate formation. The monitoring device has an adjustment drive which mechanically displaces the control device to a state in which the valve is closed.

Through the structure of the claimed invention having a monitoring device against condensation formation having an adjustment drive which mechanically displaces a control device to a state in which a valve is closed, as claimed in claim 1, the claimed invention provides a cooling ceiling installation which avoids condensation formation in a simple manner. The prior art does not show, teach or suggest the invention as claimed in claim 1.

Claims 1, 3-5, 8-9, 11 and 13-14 were rejected under 35 U.S.C. §103 as being unpatentable over *D64646* ("Massgeschneiderte Regellösungen für Kühl- und Heizstrahldecken") in view of *Danfoss* (EP 0923013).

Applicants respectfully traverse the Examiner's rejection of the claims under 35 U.S.C. §103. The claims have been reviewed in light of the Office Action and for reasons which will be set forth below, applicants respectfully request the Examiner withdraws the rejection to the claims and allows the claims to issued.

A monitoring device against condensate formation is, for example, described in the brochure "Massgeschneiderte Regellösungen für Kühl- und Heizstrahldecken" of the Zent-Frenger Gesellschaft für Gebäudetechnik mbH, *D64646* Heppenheim.

With increasing room temperature, the valve controlling the flow of the heat transfer medium through the heat exchanger, is opened. Such a system is typically dimensioned for an inlet temperature of 14°C and a return temperature of 16 to 19°C. With higher air humidity, there is, as mentioned above, a risk of condensed water formation on the cooling ceiling. This risk is not eliminated in that the valve is controlled, for example via a thermostatic controller. In order to counteract the condensate formation, the known case combines the room temperature control in an electronic manner with an integrated condensate monitoring. In principle, there are two different control forms. Measuring of the dew-point or the relative air humidity are made currently, and when a critical point is reached, the inlet temperature is increased, that is, an active condensate monitoring, or the valve is closed, so that the cooling ceiling is "turned off", that is, a passive condensate monitoring. (Specification page 1, line 30 through page 82, line 19)

Thus, *D64646* merely discloses a dewpoint sensor B1, valve Y2, thermostat B3 and an electronic controller N1. Nothing in *D64646* shows, teaches or suggests a condensation monitoring device having an adjustment drive which mechanically displaces a control device as claimed in claim 1. Rather, *D64646* merely discloses a dewpoint sensor which electronically outputs to the electronic controller N1.

Furthermore, *D64646* merely discloses electronic controller N1. Nothing in D64646 shows, teaches or suggests a mechanical control device which can be mechanically displaced as claimed in claim 1. Rather, *D64646* merely discloses an electronic controller N1.

Danfoss appears to disclose [0001] a thermostat head for a valve with a handle-free housing, with a regulating unit, which, on operation of an electrical

activator, adjusts a contact surface controlling the valve and with a desired value input device operable by means of a signal generator. [0028] The thermostat head in Fig. 1 has a housing 1, which is fixed on the top part 3 of a radiator valve 4 by means of a socket 2. The housing 1 is shown to be a single part, in practice, however, it comprises several parts connected with each other. The valve 4 is activated in that an axially adjustable contact surface 5 acts upon a valve tappet 6, which is lead to the outside through a stuffing box 7. [0029] Between a supporting surface 8 of the housing 1 and the contact surface 5 a thermostatic element 9 and a regulatory unit 10 are arranged, which are connected with each other via a coupling surface 11. [0033] The regulating unit 10 comprises an unrotatable part 14 and a rotatable part 15, which are connected with each other via a screw thread 16. The rotatable part 15 carries a gear wheel 17, which is drivable by means of an electric motor 19, for example a stepping motor, via a pinion 18. The motor 19 is arranged in a bulge 20 on the housing 1, which also accommodates batteries 21 for driving the motor 19 and a control circuit 22. [0031] A control circuit 22 arranged inside the housing 1 has a desired value input device, which co-operates with a signal generator 23 and has, for example, a keyboard 24 and a display 25. The signal generator 23 is designed as the control circuit 22 occurs wirelessly or via a cable connection 26. By means of this signal generator 23 the desired value or a desired value programme meant for a longer period (day, week, year) is supplied to a memory in the control circuit 22. Then each change of the desired value will cause the control circuit 22, which also comprises a timer, to drive the motor 19 by a measure corresponding to the change. The change of the length L2 caused by this specifies the new desired value for the thermostat head. [0033] In Fig. 2, in which a

thermostat head for a refrigeration valve is shown schematically, reference signs increased by 100 in relation to Fig. 1 are used for corresponding parts. Initially, a difference is that the thermostatic element 109 contains a fluid-steam filling an is connected with a remote sensor 128 via a capillary tube 127. Thus, via an intermediate link 129 the thermostatic element 109 acts upon a reversing device 130 in the form of an angled lever, whose second arm is loaded by the counter flange 131 of a spring 132. For this reason the unrotatable part 114 of the regulating unit 110 assumes a position depending on the steam pressure in the thermostatic element 109 and the power of a spring 132 counteracting this steam pressure. This leads to a reversal of the operational direction of the thermostatic element 109 with regard to the contact surface 105. A motor-driven adjustment of the gear wheel 117 will change the length of the regulating unit 110 and thus also the desired value. In this embodiment the signal generator 123 is arranged at the front side of the housing 101.

Thus, *Danfoss* merely discloses a signal generator 23 which sets a temperature and a control circuit 22 which has a desired value input from the signal generator 23. Nothing in *Danfoss* shows, teaches or suggests a monitoring device against condensation formation as claimed in claim 1. Furthermore, since nothing in *Danfoss* shows, teaches or suggests the condensation monitoring device, nothing in *Danfoss* shows, teaches or suggests the monitoring device has an adjustment drive which mechanically displaces the control device as claimed in claim 1. Rather, *Danfoss* only discloses a signal generator 22 which communicates with control circuit 22.

Furthermore, *Danfoss* merely discloses that signal generator 23 is a remote control to set a temperature. Nothing in *Danfoss* shows, teaches or suggests a condensation monitoring device having an adjustment drive which mechanically displaces the control device as claimed in claim 1. Rather, the output from the signal generator 23 is electronic and thus signal generator 23 of *Danfoss* a) does not have an adjustment drive and b) does not mechanically displace the control device by the adjustment drive.

Also, *Danfoss* merely discloses that signal generator 23 is connected to the controller 22 wirelessly or via a cable connection 26. Thus nothing in *Danfoss* shows, teaches or suggests any mechanical displacement of control device 22 by a monitoring device.

Finally, *Danfoss* merely discloses that the signal generator has a keypad 24 and display 25. Thus, *Danfoss* merely discloses a way to set the temperature remotely. Nothing in *Danfoss* shows, teaches or suggests a remote sensing device and an adjustment device arranged on the sensing device which mechanically displaces the control device as claimed in claim 3. *Danfoss* only discloses signal generator 23 having no sensing device and having no adjustment drive arranged on the sensing device.

A combination of *D64646* and *Danfoss* would merely suggest to replace the thermostat B3 of *D64646* with the signal generator 23 of *Danfoss* and/or to replace the controller N1 and valve Y2 of *D64646* with the regulating unit 10 of *Danfoss*. Thus nothing in the combination of the references shows, teaches or suggests a) a condensation monitoring device having an adjustment drive which mechanically displaces a mechanical control device as claimed in claim 1 or b) the mechanical

control device has a sensing device located remotely from the valve and the adjustment drive is arranged on the sensing device as claimed in claim 3. Therefore, applicants respectfully request the Examiner withdraws the rejection to claim 1 under 35 U.S.C. §103.

Claims 3-5, 8-9, 11 and 13-14 depend from claim 1 and recite additional features. Applicants respectfully submit that claims 3-5, 8-9, 11 and 13-14 would not have been obvious within the meaning of 35 U.S.C. §103 over *D64646* and *Danfoss* at least for the reasons as set forth above. Therefore, applicants respectfully request the Examiner withdraws the rejection to claims 3-5, 8-9, 11 and 13-14 under 35 U.S.C. § 103.

Since claims 2, 6-7, 10 and 12 depend from allowable claims, Applicants respectfully request these claims also be allowed.

Thus it now appears that the application is in condition for reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested. Should the Examiner find that the application is not now in condition for allowance, applicants respectfully request the Examiner enters this Response for purposes of appeal.

If for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is respectfully requested to contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed within the currently set shortened statutory period, applicants respectfully petition for an appropriate extension of time. The fees for such extension of time may be charged to our Deposit Account No. 02-4800.

In the event that any additional fees are due with this paper, please charge our Deposit Account No. 02-4800.

Respectfully submitted,

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